COMMODITY FLOW SURVEY: EXECUTING BATCH FIXES WITH DJANGO

Economic Reimbursable Surveys Division

Berin Linfors — Commodity Flow Survey Chief





MATTHEW ROSE

Duke University

Computer Science

CONTEXT

Commodity Flow Survey

"The CFS provides a comprehensive multimodal picture of national freight flows. Data include the type of commodities shipped, origin and destination, value and weight, and mode of transport for approximately 100,000 shippers."

Current Batch Fix Workflow

Identify Errors \rightarrow Determine file type \rightarrow Manually create file \rightarrow Validate data \rightarrow Upload file



MOTIVATION



Time spent manually creating files





Need for data validation





Lack of ability to preview fixes





Size of data tables and batch fixes







THE SOLUTION

Django Web Application

Django is a Python framework to easily create and maintain web apps with easier database management.



Updated Workflow

Identify Errors \rightarrow Log into app \rightarrow Filter data \rightarrow Replace values \rightarrow

App generates input file → Upload file



CONCLUSION

Benefits

Saves time for analysts/programmers, increases data validity within database

Next Steps

- Improve data validation and special character identification
- Automate the process of identifying incorrect cells in table
- Integrate local database with Oracle database
- More flexibility and abstraction within code to process input file

